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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/703,425

11/01/2000

Christopher Scott Stenta

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1386

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06/18/2002

E I DU PONT DE NEMOURS AND COMPANY  
LEGAL PATENT RECORDS CENTER  
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WILMINGTON, DE 19805

EXAMINER

LE, DANG D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/703,425

Applicant(s)

STENTA

Examiner

Dang D Le

Art Unit

2834



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-12 and 14-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11,12 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1, 2, 4-9, 11, 12, 14-18 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Gruber et al. (U.S. Patent No. 4,783,608).

Regarding claim 1, Gruber et al. show a bearing system (Figure 1) for use with a motor having a rotor shaft (5) and a rotor rotating within an opening through a stator (12), comprising a bearing bracket (23) having at least a portion composed of an elastomeric material (column 3, lines 55-65) comprising a receptacle (21) surrounding a bearing (7) and supporting the bearing in fixed relation to the bracket, wherein the bracket (23) is adapted to be mounted on the motor (Figure 1) such that the opening in the bearing is disposed in the vicinity of an axis of the rotor shaft (5), and wherein the bracket (23) is sufficiently flexible that the rotor shaft can deflect the bracket so that the bearing moves into alignment with an axis of the rotating shaft but the bracket is

sufficiently rigid that the rotor is maintained in spaced relation from the stator (column 3, lines 55-65) during operation of the motor.

Regarding claim 2, it is noted that Gruber et al. also shows the brackets (23) being resilient.

Regarding claim 4, it is noted that Gruber et al. also show the bracket being composed of an elastomeric material.

Regarding claim 5, it is noted that Gruber et al. also show a rotation lock cooperating between the bearing and the receptacle (35, 37) to restrain the bearing against substantial rotation relative to the bracket.

Regarding claim 6, it is noted that Gruber et al. also show the rotation lock comprising at least one flat (37) on the bearing.

Regarding claim 9, it is noted that Gruber et al. also shows the bracket being provided with at least one ribbed post (32, Figure 1) complimentary to a ribbed socket (21), the post being adapted to be secured to the socket by interlocking between ribs of the post and ribs formed about a wall of the socket.

4. Claims 11, 12, 14, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Rossi.

Regarding claim 11, Rossi shows a motor (Figures 1-3) having a rotor shaft (17) and a rotor rotating within an opening through a stator (15), having a bearing system comprising:

- One or more bearings (26) each comprising an opening having at least one bearing surface, for maintaining a radial alignment of the rotor shaft, and

- One or more bearing brackets (18) each comprising a receptacle (25) surrounding the bearing and supporting the bearing in fixed relation,
- Wherein the brackets (18) are adapted to be mounted on the motor such that the openings in the bearings are disposed on opposite ends of the stator in the vicinity of an axis of the rotor shaft (Figure 1), and wherein the brackets, at least a portion of the brackets being composed of an elastomeric material (polyamide), are sufficiently flexible (inherently because if not the shaft 17 can not be inserted into the two bearings) that the rotor shaft can deflect the brackets so that the bearings move into alignment with an axis of the rotating shaft but the brackets are sufficiently rigid (inherently, because if not the air gap between rotor and stator can not be maintained) that the rotor is maintained in spaced relation from the stator during operation of the motor.

Regarding claim 12, it is noted that Rossi also shows the brackets (18) being resilient.

Regarding claim 14, it is noted that Rossi also shows the bracket being composed of an elastomeric material.

Regarding claim 17, it is noted that Rossi also shows the bearing being composed of a polymeric plastic and comprising a flange projecting radially from a hub.

Regarding claim 18, it is noted that Rossi also shows the bearing bracket being insert molded about the bearing.

***Claim Rejections - 35 USC § 103***

Art Unit: 2834

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gruber et al. in view of Rossi (France Patent No. 2,545,664).

Regarding claim 7, Gruber et al. shows all of the limitations of the claimed invention except for the bearing being composed of a polymeric plastic and comprising a flange projecting radially from a hub.

However, Rossi shows the bearing (26) being composed of a polymeric plastic and comprising a flange projecting radially from a hub (Figure 2) for the purpose of avoiding the use of lubrication.

Since Gruber et al. and Rossi are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the bearing with a polymeric plastic and a flange projecting radially from a hub as taught by Rossi for the purpose discussed above.

Regarding claim 8, it is noted that Rossi also shows the bearing bracket (18) being insert molded about the bearing.

3. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rossi in view of McGinley (U. S. Patent No. 1,220,991).

Regarding claim 15, Rossi show all of the limitations of the claimed invention except for a rotation lock cooperating between the bearing and the receptacle to restrain the bearing against substantial rotation relative to the bracket.

However, McGinley shows a rotation lock (13) cooperating between the bearing (8) and the receptacle to restrain the bearing against substantial rotation relative to the bracket for the purpose of preventing rotation.

Since Rossi and McGinley are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to cooperate a rotation lock between the bearing and the receptacle to restrain the bearing against substantial rotation relative to the bracket as taught by McGinley for the purpose discussed above.

Regarding claim 16, it is noted that McGinley also shows the rotation lock comprising at least one flat on the bearing.

***Allowable Subject Matter***

5. Claims 10, 19 and 20 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: the record of prior art does not show a bearing system comprising:

- A bracket provided with two posts and adapted to interlock with complimentary posts on a second bracket as shown in claims 10 and 20.
- A first bracket provided with at least one ribbed post and a second bracket provided with at least one ribbed socket complimentary to the post, the post

being adapted to be secured in the socket by interlocking between ribs of the post and ribs of the socket as shown in claim 19.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Information on How to Contact USPTO***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)

Application/Control Number: 09/703,425

Page 8


Art Unit: 2834

308-7382 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

DDL  
June 14, 2002

DL

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800